



Real-time
PCR



Catalogue2020

PCR Real-Time kits

Values to rely on

GENERON assays feed your safety and quality assurance through our best direct technical support



Expertise

Food safety specialists

At Generon, we bring our market expertise and product innovation directly to your business

We founded GENERON biotechnology laboratories in Modena, in the heart of Italian food Valley. As food safety specialists we create sharp, cost effective test kits to provide you with accurate and ready-to-use solutions



By your side

Support and partnership

At Generon, we are driven by our customers
Food market players are increasingly aware and must tackle changing high standards.
Choosing GENERON as a partner gives you access to the best analytical tools portfolio that we have customized and evaluated for you to be best-in range exceeding your expectations



Action team

Strength in connection

At Generon, we are continuously investing in our international professional team

Behind each GENERON assay there is a team of molecular and micro-biologists, chemists, food technologists, customer service and sales specialists all connected and committed to earn your trust and boost your quality control diagnostics through profitable partnership



Time for value

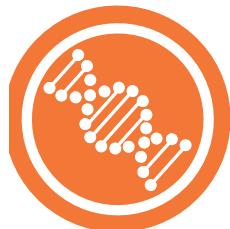
Immediate solutions

At Generon, we ensure your value by providing timely support and science on-demand

Through constant research, we select and rigorously evaluate all the new solutions that science and technology advancements offer to guarantee you designed-in quality and high-speed tests to perfectly match the requirements of your industry business process

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ION Extraction Kits

Nucleic acids based analysis methods and their standardization are the core of Generon R&D and sales activities as we aim to be the most reliable partner in this field for food and beverage industry.

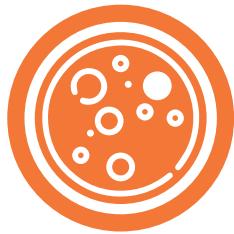
ION is the portfolio of DNA extraction products developed by Generon to exploit at best Real-Time PCR and Droplet Digital PCR, three kits with different profiles to offer the customer the most convenient solution to fit the technical demands.

- **ION Liquid FORCE:** the rapid solution specifically developed for crude and fast extraction of bacteria DNA after media broth enrichment.
- **ION Spin DNA Prep One-for-All:** CTAB based kit for the extraction of DNA from small samples containing PCR inhibiting compounds.
- **ION Force DNA extractor FAST:** CTAB based kit for the extraction of DNA from large samples when representativeness is of paramount importance.

Ion Force DNA Extractor FAST is used at the Italian National Reference Lab for GMO as it allows reproducible DNA extractions from matrices the other available commercial kits are not able to perform on, giving poor and uneven DNA yields.

- **DirectZol miniprep:** quick, spin column purification of high-quality (DNA-free) RNA directly from TRI Reagent and other acid-guanidinium-phenol based reagents.

| Product List | 100 Test | 50 Tests |
|--|----------|----------|
| ION Spin DNA Prep One-for-All | - | EXD018 |
| ION Force DNA Extractor FAST | EXD001 | - |
| FAST FOOD Universal DNA extraction kit | EXD009 | - |
| Zymo DirectZol miniprep w/ Trireagent | - | EXD901 |



PATHfinder

Microbiology Kits

PATHfinder is the portfolio of products developed by Generon to exploit at best Real-Time PCR, and offers to the customer optimized and validated protocols to verify the presence of a wide range of pathogenic or spoilage micro-organisms by searching their DNA.

The collection includes:

- **PATHfinder Assays:** primers and probes developed on the basis of peer reviewed scientific articles after an in depth in-silico and in-vitro confirmation of the published data, blended with selected polymerases to ensure best-in-class detection. Each assay box contains target specific reagents (primers and probes), Mastermix, negative control and positive control.
- **PATHfinder SureXtra:** heat inactivated bacterial pellets at known cell count ensuring a tight control of DNA extraction process efficacy.
- **PATHfinder DigiCount:** innovative ddPCR counted calibrators for best state-of-art accuracy in genomic unit quantification.

| Product List | 50 Tests |
|--|-------------|
| PATHfinder - 3Plex Detection of Anisakis/Pseudoterranova in fish | PMB66A-50 |
| PATHfinder - Detection of foodborne Bacillus Cereus | PMB09A-50 |
| PATHfinder - Detection of Brettanomyces in wine products | PMB65A-50 |
| PATHfinder - Detection of foodborne Clostridium botulinum | PMB44A-50 |
| PATHfinder - Detection of foodborne C. botulinum (ISO-17919) | PMB67A-50 |
| PATHfinder - Detection of foodborne Clostridium perfringens | PMB06A-50 |
| PATHfinder - Detection of foodborne Cryptosporidium | PMB42A-50 |
| PATHfinder - Detection of foodborne E.coli and Shigella spp. | PMB14A-50 |
| PATHfinder - 2x2-Plex STEC stx1+stx2/stx2f & eae/IAC (ISO13136) | PMB10A-F-50 |
| PATHfinder - Detection of foodborne E.coli H:4 [flic] | PMB10A-H4 |
| PATHfinder - Detection of foodborne E.coli H:7 [flic] | PMB10A-H7 |
| PATHfinder - Detection of E.coli O:103 [wzx] (acc. to ISO13136) | PMB10A-P103 |
| PATHfinder - Detection of foodborne E.coli O:104 [wzx] | PMB10A-P104 |
| PATHfinder - Detection of E.coli O:111 [wbdL] (acc. to ISO13136) | PMB10A-P111 |
| PATHfinder - Detection of foodborne E.coli O:121 [wzx] | PMB10A-P121 |
| PATHfinder - Detection of E.coli O:145 [ihp1] (acc. to ISO13136) | PMB10A-P145 |
| PATHfinder - Detection of E.coli O:157 [rfbE] (acc. to ISO13136) | PMB10A-P157 |
| PATHfinder - Detection of E.coli O:26 [wzx] (acc. to ISO13136) | PMB10A-P26 |
| PATHfinder - Detection of foodborne E.coli O:45 [wzx] | PMB10A-P45 |



| Product List | 50 Tests |
|--|---------------|
| PATHfinder - Detection of E.coli STEC (eae) (acc. to ISO13136) | PMB10A-VE-50 |
| PATHfinder - Detection of E.coli STEC (stx1) (acc. to ISO13136) | PMB10A-V1-50 |
| PATHfinder - Detection of E.coli STEC (stx2) (acc. to ISO13136) | PMB10A-V2-50 |
| PATHfinder - Detection of E.coli STEC (stx2f) (acc. to EURL) | PMB10A-V2F-50 |
| PATHfinder - Detection of STEC stx1/stx2 & eae/IAC (ISO13136) | PMB10A-50 |
| PATHfinder - Detection of STEC acc. to ISO13136 - [stx1+stx2]/[eae] | PMB10M-50 |
| PATHfinder - Detection of foodborne Giardia | PMB41A-50 |
| PATHfinder - Guaiacol producing Alicyclobacilli and A.Acidocaldarius | PMB48A-G-50 |
| PATHfinder - Detection of Legionella pneumophila (acc. to ISO12869) | PMB15A-50 |
| PATHfinder - Detection of Legionella pneumophila Serogroup 1 | PMB15D-SG1-50 |
| PATHfinder - Detection of Legionella spp. (acc. to ISO12869) | PMB18A-50 |
| PATHfinder - LegionellaSpp/L.pneumophila/L.pneumophilaSG1 (ISO12869) | PMB15D-SG-50 |
| PATHfinder - Detection of Listeria spp. and Listeria monocytogenes | PMB23A-50 |
| PATHfinder - Detection of foodborne Listeria monocytogenes | PMB02A-50 |
| PATHfinder - Detection of foodborne Listeria Spp | PMB03A-50 |
| PATHfinder - Detection of foodborne Pseudomonas aeruginosa | PMB05A-50 |
| PATHfinder - Detection of foodborne Salmonella Spp | PMB01A-50 |
| PATHfinder - Salmonella spp./L.monocytogenes/Listeria spp. | PMB68A-50 |
| PATHfinder - Detection of foodborne Shigella spp | PMB61A-50 |
| PATHfinder - Discrimination Shigella and E.coli colony isolates | PMB58A-50 |
| PATHfinder - Detection of foodborne Staphilococcus aureus | PMB11A-50 |
| PATHfinder - Thermotolerant Campylobacters (jejunii/coli/lari) | PMB04A-50 |
| PATHfinder - Salmonella spp./L.monocytogenes and [stx1+stx2]/[eae] | PMB64A-50 |
| PATHfinder - Salmonella spp. and Listeria monocytogenes | PMB64A-1-50 |
| PATHfinder - Salmonella spp. + L. mono and VTEC [stx1+stx2]/[eae] | PMB64A-2-50 |
| PATHfinder - Detection of Salmonella spp. + L.monocytogenes | PMB64A-3-50 |
| PATHfinder - Detection of foodborne Vibrio cholerae | PMB13A-C-50 |
| PATHfinder - Detection of foodborne Vibrio parahemolyticus | PMB13A-P-50 |
| PATHfinder - Vibrio parahemolyticus and virulence factors tdh/trh | PMB17A-50 |
| PATHfinder - Pathogenic Vibrio-parahaemolyticus/vulnificus/cholerae | PMB13A-M-50 |
| PATHfinder - Detection of foodborne Vibrio vulnificus | PMB13A-V-50 |
| PATHfinder - Detection of Yersinia Enterocolitica (acc. to ISO18867) | PMB07A-50 |
| PATHfinder - Yersinia pseudotuberculosis (acc. to ISO18867) | PMB60A-50 |



PATHfinder Microbiology Kits

| Product List | 4 x 50 Tests |
|---|--------------|
| PATHfinder - Identification C.botulinum [A,B,E,F](acc. to ISO-17919) | PMB67A-ID |
| SureXtra Product List | 50 Vials |
| PATHfinder SureXtra - Process control for PCR based Salmonella spp. | PMB01X |
| PATHfinder SureXtra - Process control for PCR based Listeria spp and monocytogenes | PMB02X |
| PATHfinder SureXtra - Process control for PCR based Bacillus cereus | PMB09X |
| PATHfinder SureXtra - Process control for PCR based E.coli VTEC stx2f | PMB10X-F |
| PATHfinder SureXtra - Process control for PCR based E.coli VTEC (stx1+stx2+eae) | PMB10X-M |
| PATHfinder SureXtra - Process control for PCR based E.coli O:103 | PMB10X-P103 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:104 | PMB10X-P104 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:111 | PMB10X-P111 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:121 | PMB10X-P121 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:145 | PMB10X-P145 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:157 | PMB10X-P157 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:26 | PMB10X-P26 |
| PATHfinder SureXtra - Process control for PCR based E.coli O:45 | PMB10X-P45 |
| PATHfinder SureXtra - Process control for PCR based Staphylococcus aureus | PMB11X |
| PATHfinder SureXtra - Process control for PCR based Clostridium botulinum | PMB44X |
| PATHfinder SureXtra - Process control for PCR based Alicyclobacillus acidocaldarius | PMB48X-AC |
| PATHfinder SureXtra - Process control for PCR based Alicyclobacillus acidoterrestris | PMB48X-AT |
| PATHfinder SureXtra - Process control for PCR based C. botulinum (amplicon ISO-17919) | PMB67X |



MODIfinder

GMO Kits

MODIfinder is the product line developed by Generon with premium quality molecular biology reagents to provide the customer a "turn-key" solution for the detection and quantification of a wide selection of specific and generic GMO events according to EU norms. Using MODIfinder products along with an appropriate DNA extraction method enables to test the presence of GMOs in the most diverse matrices: Bulk/Raw Ingredients, Semi-finished products, Finished products.

The development and application of reliable detection and quantitative analytical methods was essential for the implementation of the labelling rules. Real-time PCR is the gold standard in GMO analysis according to ISO norms. The molecular analysis required to comply with the current European Union GMO legislation consist of three distinct steps: **Detection, Identification, Quantification**

MODIfinder Screening Assays collection includes:

- **Real-Time assays** for all the relevant screening target (including gene and construct specific assays) and allows their detection in single-plex or multiplex. Assays were developed following indications published in the JRC "Compendium of reference methods for GMO analysis" or in other peer reviewed scientific literature.
- **Plant/Eukaryotic generic marker** to determine the overall amplificability of the extracted DNA when ingredient are not known.

Each assay box contains target specific reagents (primers and probes), Mastermix, negative control and positive control.

| Product List | 50 Tests |
|---|-------------|
| MODIfinder - GMO detection kit - Marker p35S CaMV | PGE01A-50 |
| MODIfinder - Quantitative GMO detection kit - Marker p35S CaMV | PGE01Q-50 |
| MODIfinder - GMO detection kit - Marker t35S CaMV | PGE03A-50 |
| MODIfinder - GMO detection kit - Marker tNOS | PGE04A-50 |
| MODIfinder - Quantitative GMO detection kit - Marker tNOS | PGE04Q-50 |
| MODIfinder - MultiSCREEN 2-plex kit for the detection of GM markers p35S/tNOS | PGE05A-50 |
| MODIfinder - GMO detection kit - Marker nptII | PGE07A-50 |
| MODIfinder - GMO detection kit - Marker pat | PGE14A-50 |
| MODIfinder - GMO detection kit - Marker bar | PGE15A-50 |
| MODIfinder - GMO detection kit - Marker cp4-epsps | PGE16A-50 |
| MODIfinder - GMO detection kit - Marker p34S FMV | PGE17A-50 |
| MODIfinder - GMO detection kit - Marker cry1Ab/Ac | PGE25A-50 |
| MODIfinder - 4-plex kit for GM markers p35S/tNOS/pFMV with internal control | PGE26A-C-50 |
| MODIfinder - GMO detection kit - Marker pNOS | PGE27A-50 |
| MODIfinder - 3-plex kit for the detection of GM markers nptII/pat/cp4-epsps | PGE32A-50 |
| MODIfinder - 4-plex kit for the detection of GM markers p35S/tNOS/pFMV/bar | PGE34A-50 |



| | |
|--|-----------|
| MODIfinder - 4-plex kit for detection of GM markers nptII/pat/cp4-epsps/pNOS | PGE35A-50 |
| MODIfinder - GMO detection kit - Marker tE9 | PGE37A-50 |
| MODIfinder - 2-plex for detection of CaMV/FMV virions | PGE39A-50 |
| MODIfinder - 2-plex kit for the detection of GM markers pFMV/nptII | PGE40A-50 |
| MODIfinder - 4-plex kit for detection of GM markers cp4-epsps/pat/bar/nptII | PGE42A-50 |
| MODIfinder - 4-plex kit for the detection of GM markers p35S/tNOS/pFMV/t35S | PGE47A-50 |
| MODIfinder - 2-plex kit for the detection of GM markers t35S/pat+bar | PGE51A-50 |
| MODIfinder - 2-plex kit for the detection of GM markers t35S/pFMV | PGE52A-50 |
| MODIfinder - 2-plex kit for the detection of GM markers cp4-epsps/pat | PGE53A-50 |
| MODIfinder - 2-plex kit for the detection of GM markers nptII/bar | PGE54A-50 |

MODIfinder Identification Assays

MODIfinder Identification Assays were developed to detect the only unique signature of a transformation event that is the junction at the integration locus between the recipient genome and the inserted DNA. The identification of the GMO contaminating the matrix under investigation is a fundamental step when considering the labelling rules enforced in Europe.

Quantitation of GMO contamination must be in fact relative to something. In European legislation it refers to the presence w/w relative to the ingredient and not to the whole product. Therefore knowing exactly which is the event to quantify is crucial.

| Product List | 50 Tests |
|--|-----------|
| MODIfinder - GMO detection kit - Reference Genes Corn/Soy/Rapeseed/Cotton | PGE33A-50 |
| MODIfinder - 2-plex GMO detection kit - Reference genes Corn/Soy | PGE43A-50 |
| MODIfinder - 3-plex GMO detection kit - Reference genes Rice/Sugar Beet/Wheat | PGE48A-50 |
| MODIfinder - 4-plex GMO detection kit - Reference genes Flax/Soy/Rapeseed/Cotton | PGE49A-50 |
| MODIfinder - 2-plex GMO detection kit - Reference genes Rapeseed/Cotton | PGE50A-50 |
| MODIfinder - GMO detection kit - Universal eukaryotic reference gene (28S) | PGE06A-50 |
| MODIfinder - GMO detection kit - Soy reference gene | PGE09A-50 |
| MODIfinder - GMO detection kit - Flax reference gene | PGE12A-50 |
| MODIfinder - GMO detection kit - Rice reference gene | PGE13A-50 |
| MODIfinder - GMO detection kit - Rapeseed (Canola) reference gene | PGE19A-50 |
| MODIfinder - GMO detection kit - Potato reference gene | PGE20A-50 |
| MODIfinder - GMO detection kit - Cotton reference gene | PGE21A-50 |
| MODIfinder - GMO detection kit - Sugar Beet reference gene | PGE22A-50 |
| MODIfinder - GMO detection kit - Corn reference gene | PGE24A-50 |
| MODIfinder - GMO detection kit - Wheat reference gene | PGE29A-50 |
| MODIfinder - GMO detection kit - Papaya reference gene | PGE31A-50 |



MODIfinder Quantitative kits

MODIfinder Quantitative Assays were developed to quantify the presence of a GMO in a sample according to EU indications. For quantitation, the copy number of the GM PCR target relative to genome copies of the corresponding species is important because the principle of quantitation of GM content is to compare the relative ratio of these two. Usually, a PCR targeting a species-specific single copy gene is used to determine the amount of the species derived DNA, for example the soybean lectin gene for soya-derived DNA.

Using Real-Time PCR Quantitation can be done by comparison with a standard curve obtained by using DNA extracts from reference materials. In standard curve quantitation, the final quantitative estimate is based on comparing estimated quantity of GM to estimated quantity of reference TAXA. All MODIfinder Quantitative Assays allows for qualitative DNA detection with a detection limit down to 0.01% w/w depending on matrix and DNA preparation. Each assay contains event specific mix (primers and probe), taxon specific mix (primers and probe), Mastermix, standard solutions at 5 scalar target GM concentration, taxon DNA standard solutions at 5 scalar concentration and negative control. Standard solutions are obtained extracting lot traceable reference materials using Ion-Force DNA Extraction kit.

| Canola | 50 Tests |
|--|-----------|
| MODIfinder - GM Canola MS8 detection kit (UID ACS-BN005-8) | PGZ01A-50 |
| MODIfinder - GM Canola MS8 quantification Kit (UID ACS-BN005-8) | PGZ01Q-50 |
| MODIfinder - GM Canola RF3 detection kit (UID ACS-BN003-6) | PGZ02A-50 |
| MODIfinder - GM Canola RF3 quantification Kit (UID ACS-BN003-6) | PGZ02Q-50 |
| MODIfinder - GM Canola RT73 detection kit (UID MON-00073-7) | PGZ03A-50 |
| MODIfinder - GM Canola RT73 quantification Kit (UID MON-00073-7) | PGZ03Q-50 |
| MODIfinder - GM Canola T45 detection kit (UID ACS-BN008-2) | PGZ04A-50 |
| MODIfinder - GM Canola T45 quantification Kit (UID ACS-BN008-2) | PGZ04Q-50 |
| MODIfinder - GM Canola TOPAS 19 2 detection kit (UID ACS-BN007-1) | PGZ05A-50 |
| MODIfinder - GM Canola TOPAS 19 2 quantification Kit (UID ACS-BN007-1) | PGZ05Q-50 |
| MODIfinder - GM Canola RF1 detection kit (UID ACS-BN001-4) | PGZ06A-50 |
| MODIfinder - GM Canola RF1 quantification Kit (UID ACS-BN001-4) | PGZ06Q-50 |
| MODIfinder - GM Canola RF2 detection kit (UID ACS-BN002-5) | PGZ07A-50 |
| MODIfinder - GM Canola RF2 quantification Kit (UID ACS-BN002-5) | PGZ07Q-50 |
| MODIfinder - GM Canola OXY-235 detection kit (UID ACS-BN011-5) | PGZ08A-50 |
| MODIfinder - GM Canola MS1 detection kit (UID ACS-BN004-7) | PGZ09A-50 |
| MODIfinder - GM Canola MS1 quantification Kit (UID ACS-BN004-7) | PGZ09Q-50 |
| MODIfinder - GM Canola DP073496 detection kit (UID DP-073496-4) | PGZ10A-50 |
| MODIfinder - GM Canola MON88302 detection kit (UID MON-88302-9) | PGZ11A-50 |
| MODIfinder - GM Canola MON88302 quantification Kit (UID MON-88302-9) | PGZ11Q-50 |
| MODIfinder - 3-plex kit for the detection of GM rapeseed Ms8/T45/Rf3 | PGZ31A-50 |



| Corn | 50 Tests |
|--|-----------|
| MODIfinder - GM Corn Bt176 detection kit (UID SYN-EV176-9) | PGC01A-50 |
| MODIfinder - GM Corn MON810 detection kit (UID MON-00810-6) | PGC02A-50 |
| MODIfinder - GM Corn MON810 quantification kit (UID MON-00810-6) | PGC02Q-50 |
| MODIfinder - GM Corn T25 detection kit (UID ACS-ZM003-2) | PGC03A-50 |
| MODIfinder - GM Corn T25 quantification Kit (UID ACS-ZM003-2) | PGC03Q-50 |
| MODIfinder - GM Corn BT11 detection kit (UID SYN-BT011-1) | PGC04A-50 |
| MODIfinder - GM Corn BT11 quantification Kit (UID SYN-BT011-1) | PGC04Q-50 |
| MODIfinder - GM Corn NK603 detection kit (UID MON-00603-6) | PGC05A-50 |
| MODIfinder - GM Corn NK603 quantification Kit (UID MON-00603-6) | PGC05Q-50 |
| MODIfinder - GM Corn CBH-351 detection kit (UID ACS-ZM004-3) | PGC06A-50 |
| MODIfinder - GM Corn GA21 detection kit (UID MON-00021-9) | PGC07A-50 |
| MODIfinder - GM Corn GA21 quantification Kit (UID MON-00021-9) | PGC07Q-50 |
| MODIfinder - GM Corn DAS1507 detection kit (UID DAS-01507-1) | PGC08A-50 |
| MODIfinder - GM Corn DAS1507 quantification Kit (UID DAS-01507-1) | PGC08Q-50 |
| MODIfinder - GM Corn MON863 detection kit (UID MON-00863-5) | PGC09A-50 |
| MODIfinder - GM Corn MIR604 detection kit (UID SYN-IR604-5) | PGC10A-50 |
| MODIfinder - GM Corn MIR604 quantification Kit (UID SYN-IR604-5) | PGC10Q-50 |
| MODIfinder - GM Corn DAS59122 detection kit (UID DAS-59122-7) | PGC11A-50 |
| MODIfinder - GM Corn DAS59122 quantification Kit (UID DAS-59122-7) | PGC11Q-50 |
| MODIfinder - GM Corn DBT418 detection kit (UID DKB-89614-9) | PGC12A-50 |
| MODIfinder - GM Corn 98140 detection kit (UID DP-098140-6) | PGC13A-50 |
| MODIfinder - GM Corn MIR162 detection kit (UID SYN-IR162-4) | PGC14A-50 |
| MODIfinder - GM Corn MIR162 quantification Kit (UID SYN-IR162-4) | PGC14Q-50 |
| MODIfinder - GM Corn LY038 detection kit (UID REN-00038-3) | PGC16A-50 |
| MODIfinder - GM Corn Event 3272 detection kit (UID SYN-E3272-5) | PGC17A-50 |
| MODIfinder - GM Corn MON88017 detection kit (UID MON-88017-3) | PGC19A-50 |
| MODIfinder - GM Corn MON88017 quantification Kit (UID MON-88017-3) | PGC19Q-50 |
| MODIfinder - GM Corn MON89034 detection kit (UID MON-89034-3) | PGC20A-50 |
| MODIfinder - GM Corn MON89034 quantification Kit (UID MON-89034-3) | PGC20Q-50 |
| MODIfinder - GM Corn DAS40278 detection kit (UID DAS-40278-9) | PGC22A-50 |
| MODIfinder - GM Corn DAS40278 quantification Kit (UID DAS-40278-9) | PGC22Q-50 |
| MODIfinder - GM Corn MON87460 detection kit (UID MON-87460-4) | PGC23A-50 |
| MODIfinder - GM Corn MON87460 quantification Kit (UID MON-87460-4) | PGC23Q-50 |



| Corn | 50 Tests |
|--|-----------|
| MODIfinder - GM Corn Event 5307 detection kit (UID SYN-05307-1) | PGC24A-50 |
| MODIfinder - GM Corn Event 5307 quantification Kit (UID SYN-05307-1) | PGC24Q-50 |
| MODIfinder - GM Corn MON87427 detection kit (UID MON-87427-7) | PGC25A-50 |
| MODIfinder - GM Corn MON87427 quantification Kit (UID MON-87427-7) | PGC25Q-50 |
| MODIfinder - GM Corn VCO-01981-5 detection kit (UID VCO-01981-5) | PGC26A-50 |
| MODIfinder - GM Corn MON87411 detection kit (UID MON-87411-9) | PGC27A-50 |
| MODIfinder - GM Corn MON87411 quantification Kit (UID MON-87411-9) | PGC27Q-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn DAS40278/LY038 | PGC28A-50 |
| MODIfinder - GM Corn 4114 detection kit (UID DP-004114-3) | PGC29A-50 |
| MODIfinder - GM Corn 4114 quantification Kit (UID DP-004114-3) | PGC29Q-50 |
| MODIfinder - GM Corn MZHGOJG detection kit (UID SYN-000JG-2) | PGC31A-50 |
| MODIfinder - GM Corn MZHGOJG quantification Kit (UID SYN-000JG-2) | PGC31Q-50 |
| MODIfinder - GM Corn MON87403 detection kit (UID MON-87403-1) | PGC32A-50 |
| MODIfinder - GM Corn MON87403 quantification Kit (UID MON-87403-1) | PGC32Q-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn 4114/5307 | PGC33A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn Bt11/DAS1507 | PGC34A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn GA21/DAS59122 | PGC35A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn MIR162/MIR604 | PGC36A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn MON810/MON87403 | PGC37A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn MON87411/MON87427 | PGC38A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn MON87460/MON88017 | PGC39A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn MON89034/NK603 | PGC40A-50 |
| MODIfinder - 2-plex kit for the detection of GM Corn T25/MZHGOJG | PGC41A-50 |
| Cotton | 50 Tests |
| MODIfinder - GM Cotton MON531 detection kit (UID MON-00531-6) | PGT01A-50 |
| MODIfinder - GM Cotton MON531 quantification Kit (UID MON-00531-6) | PGT01Q-50 |
| MODIfinder - GM Cotton MON1445 detection kit (UID MON-01445-2) | PGT02A-50 |
| MODIfinder - GM Cotton MON1445 quantification Kit (UID MON-01445-2) | PGT02Q-50 |
| MODIfinder - GM Cotton 281-24-236 detection kit (UID DAS-24236-5) | PGT03A-50 |
| MODIfinder - GM Cotton 281-24-236 quantification Kit (UID DAS-24236-5) | PGT03Q-50 |
| MODIfinder - GM Cotton T304-40 detection kit (UID BCS-GH004-7) | PGT10A-50 |
| MODIfinder - GM Cotton T304-40 quantification Kit (UID BCS-GH004-7) | PGT10Q-50 |



MODIfinder GMO Kits

| Cotton | 50 Tests |
|---|-----------|
| MODIfinder - GM Cotton 3006-210-23 detection kit (UID DAS-21023-5) | PGT04A-50 |
| MODIfinder - GM Cotton 3006-210-23 quantification Kit (UID DAS-21023-5) | PGT04Q-50 |
| MODIfinder - GM Cotton LL25 detection kit (UID ACS-GH001-3) | PGT05A-50 |
| MODIfinder - GM Cotton LL25 quantification Kit (UID ACS-GH001-3) | PGT05Q-50 |
| MODIfinder - GM Cotton MON15985 detection kit (UID MON-15985-7) | PGT06A-50 |
| MODIfinder - GM Cotton MON15985 quantification Kit (UID MON-15985-7) | PGT06Q-50 |
| MODIfinder - GM Cotton GHB614 detection kit (UID BCS-GH002-5) | PGT07A-50 |
| MODIfinder - GM Cotton GHB614 quantification Kit (UID BCS-GH002-5) | PGT07Q-50 |
| MODIfinder - GM Cotton MON88913 detection kit (UID MON-88913-8) | PGT08A-50 |
| MODIfinder - GM Cotton MON88913 quantification Kit (UID MON-88913-8) | PGT08Q-50 |
| MODIfinder - GM Cotton GHB119 detection kit (UID BCS-GH005-8) | PGT09A-50 |
| MODIfinder - GM Cotton GHB119 quantification Kit (UID BCS-GH005-8) | PGT09Q-50 |
| MODIfinder - GM Cotton T304-40 detection kit (UID BCS-GH004-7) | PGT10A-50 |
| MODIfinder - GM Cotton T304-40 quantification Kit (UID BCS-GH004-7) | PGT10Q-50 |
| Papaya | 50 Tests |
| MODIfinder - GM Papaya Huanhong N1 detection kit (UID Not Available) | PGY01A-50 |
| MODIfinder - GM Papaya 55-1 detection kit (UID CUH-CP551-8) | PGY02A-50 |
| Rice | 50 Tests |
| MODIfinder - GM Rice LL601 detection kit (UID BCS-OS003-7) | PGR01A-50 |
| MODIfinder - GM Rice LL62 detection kit (UID ACS-OS002-5) | PGR02A-50 |
| MODIfinder - GM Rice BT63 detection kit (UID HZU-HH001-9) | PGR03A-50 |
| Soybean | 50 Tests |
| MODIfinder - GM Soy A2704-12 detection kit (UID ACS-GM005-3) | PGS01A-50 |
| MODIfinder - GM Soy A2704-12 quantification Kit (UID ACS-GM005-3) | PGS01Q-50 |
| MODIfinder - GM Soy GTS 40-3-2 (RuR) detection kit (UID MON-04032-6) | PGS02A-50 |
| MODIfinder - GM Soy GTS 40-3-2 (RuR) quantification Kit (UID MON-04032-6) | PGS02Q-50 |
| MODIfinder - GM Soy A5547-127 detection kit (UID ACS-GM006-4) | PGS03A-50 |
| MODIfinder - GM Soy A5547-127 quantification Kit (UID ACS-GM006-4) | PGS03Q-50 |
| MODIfinder - GM Soy MON89788 detection kit (UID MON-89788-1) | PGS04A-50 |
| MODIfinder - GM Soy MON89788 quantification Kit (UID MON-89788-1) | PGS04Q-50 |
| MODIfinder - GM Soy DP305423 detection kit (UID DP-305423-1) | PGS05A-50 |
| MODIfinder - GM Soy DP305423 quantification Kit (UID DP-305423-1) | PGS05Q-50 |
| MODIfinder - GM Soy DP356043 detection kit (UID DP-356043-5) | PGS06A-50 |



| Soybean | 50 Tests |
|--|-----------|
| MODIfinder - GM Soy DP356043 quantification Kit (UID DP-356043-5) | PGS06Q-50 |
| MODIfinder - GM Soy MON87701 detection kit (UID MON-87701-2) | PGS07A-50 |
| MODIfinder - GM Soy MON87701 quantification Kit (UID MON-87701-2) | PGS07Q-50 |
| MODIfinder - GM Soy CV127 detection kit (UID BPS-CV127-9) | PGS08A-50 |
| MODIfinder - GM Soy CV127 quantification Kit (UID BPS-CV127-9) | PGS08Q-50 |
| MODIfinder - GM Soy MON87705 detection kit (UID MON-87705-6) | PGS09A-50 |
| MODIfinder - GM Soy MON87705 quantification Kit (UID MON-87705-6) | PGS09Q-50 |
| MODIfinder - GM Soy MON87769 detection kit (UID MON-87769-7) | PGS10A-50 |
| MODIfinder - GM Soy MON87769 quantification Kit (UID MON-87769-7) | PGS10Q-50 |
| MODIfinder - GM Soy FG72 detection kit (UID MST-FG072-2) | PGS11A-50 |
| MODIfinder - GM Soy FG72 quantification Kit (UID MST-FG072-2) | PGS11Q-50 |
| MODIfinder - GM Soy DAS44406 detection kit (UID DAS-44406-6) | PGS12A-50 |
| MODIfinder - GM Soy DAS44406 quantification Kit (UID DAS-44406-6) | PGS12Q-50 |
| MODIfinder - GM Soy DAS68416 detection kit (UID DAS-68416-4) | PGS13A-50 |
| MODIfinder - GM Soy DAS68416 quantification Kit (UID DAS-68416-4) | PGS13Q-50 |
| MODIfinder - GM Soy DAS81419 detection kit (UID DAS-81419-2) | PGS14A-50 |
| MODIfinder - GM Soy MON87708 detection kit (UID MON-87708-9) | PGS15A-50 |
| MODIfinder - GM Soy MON87708 quantification Kit (UID MON-87708-9) | PGS15Q-50 |
| MODIfinder - 3-plex for the detection of GM Soy CV127/DP305423/MON87701 | PGS16A-50 |
| MODIfinder - 3-plex for the detection of GM Soy A2704/A5547/DP356043 | PGS18A-50 |
| MODIfinder - GM Soy MON87751 detection kit (UID MON-87751-7) | PGS19A-50 |
| MODIfinder - GM Soy MON87751 quantification Kit (UID MON-87751-7) | PGS19Q-50 |
| MODIfinder - GM Soy SYHT0H2 detection kit (UID SYN-000H2-5) | PGS20A-50 |
| MODIfinder - GM Soy CV127+MON87701/DP305423+DP356043/MON87708+MON87769 | PGS21A-50 |
| MODIfinder - 2-plex for the detection of GM Soy MON87754/MON87751 | PGS23A-50 |
| MODIfinder - 2-plex for the detection of GM Soy A2704-12/A5547-127 | PGS24A-50 |
| MODIfinder - 2-plex for the detection of GM Soy CV127/MON87769 | PGS25A-50 |
| MODIfinder - 2-plex for the detection of GM Soy DAS68416/DAS44406 | PGS26A-50 |
| MODIfinder - 2-plex for the detection of GM Soy DP305423/DP356043 | PGS27A-50 |
| MODIfinder - 2-plex for the detection of GM Soy GTS 40-3-2/FG72 | PGS28A-50 |
| MODIfinder - 2-plex for the detection of GM Soy MON87705/MON89788 | PGS29A-50 |
| MODIfinder - 2-plex for the detection of GM Soy MON87708/MON87701 | PGS30A-50 |
| MODIfinder - 2-plex for detection GM Soy CV127/DP305423/MON87751/MON87708 | PGS31A-50 |
| MODIfinder - 4-plex for detection GM Soy MON87701/DP356043/MON87754/MON87769 | PGS32A-50 |



| | |
|---|-----------|
| Sugar beet | 50 Tests |
| MODIfinder - GM Sugar beet RURH7-1 detection kit (UID KM-000H71-4) | PGB01A-50 |
| MODIfinder - GM Sugar beet RURH7-1 quantification Kit (UID KM-000H71-4) | PGB01Q-50 |

MODIfinder AquAdvantage Salmon

Now salmon is the first genetically modified animal to be approved for human consumption although only in a few countries. The MODIfinder AquAdvantage Salmon Assay detects the genetic modification on the growth hormone-regulating gene of this genetically modified salmon.

| | |
|---|-----------|
| Salmon | 50 Tests |
| MODIfinder - GM Salmon AquAdvantage detection kit | PGX01A-50 |

MODIfinder SemiQ Controls

MODIfinder SemiQ Controls are purified DNA extracted from traceable reference materials at a defined concentration. When used as cut-off positive controls in GM detection experiments performed on matrices derived from single ingredients (e.g. soy grains, lecithin, corn, corn starch...) when unknown samples are normalized at the same DNA concentration, they allow for a convenient estimation of contamination level without the need of more expensive classical quantification experiments.

MODIfinder semiQ controls are available in 120 µl vials at a standard concentration of 3 ng DNA/µl and a 0.2% GM contamination, custom concentrations and cut-off are available on demand.

| Product List | 120 µl 0,2% 3 ng/µl |
|---|---------------------|
| MODIfinder GM Sugar beet RURH7-1 (UID KM-000H71-4) quantified reference DNA | PGB01R |
| MODIfinder GM Corn MON810 (UID MON-00810-6) quantified reference DNA | PGC02R |
| MODIfinder GM Corn T25 (UID ACS-ZM003-2) quantified reference DNA | PGC03R |
| MODIfinder GM Corn BT11 (UID SYN-BT011-1) quantified reference DNA | PGC04R |
| MODIfinder GM Corn NK603 (UID MON-00603-6) quantified reference DNA | PGC05R |
| MODIfinder GM Corn GA21 (UID MON-00021-9) quantified reference DNA | PGC07R |
| MODIfinder GM Corn DAS1507 (UID DAS-01507-1) quantified reference DNA | PGC08R |
| MODIfinder GM Corn MIR604 (UID SYN-IR604-5) quantified reference DNA | PGC10R |
| MODIfinder GM Corn DAS59122 (UID DAS-59122-7) quantified reference DNA | PGC11R |
| MODIfinder GM Corn MIR162 (UID SYN-IR162-4) quantified reference DNA | PGC14R |
| MODIfinder GM Corn MON88017 (UID MON-88017-3) quantified reference DNA | PGC19R |
| MODIfinder GM Corn MON89034 (UID MON-89034-3) quantified reference DNA | PGC20R |
| MODIfinder GM Corn DAS40278 (UID DAS-40278-9) quantified reference DNA | PGC22R |
| MODIfinder GM Corn MON87460 (UID MON-87460-4) quantified reference DNA | PGC23R |
| MODIfinder GM Corn Event 5307 (UID SYN-05307-1) quantified reference DNA | PGC24R |



| | |
|---|--------|
| MODIfinder GM Corn MON87427 (UID MON-87427-7) quantified reference DNA | PGC25R |
| MODIfinder GM Corn MON87411 (UID MON-87411-9) quantified reference DNA | PGC27R |
| MODIfinder GM Corn 4114 (UID DP-004114-3) quantified reference DNA | PGC29R |
| MODIfinder GM Corn MZHG0JG (UID SYN-000JG-2) quantified reference DNA | PGC31R |
| MODIfinder GM Corn MON87403 (UID MON-87403-1) quantified reference DNA | PGC32R |
| MODIfinder quantified GMO reference DNA - Marker pNOS | PGE27R |
| MODIfinder quantified GMO reference DNA - Marker p35S CaMV | PGE01R |
| MODIfinder quantified GMO reference DNA - Marker t35S CaMV | PGE03R |
| MODIfinder quantified GMO reference DNA - Marker tNOS | PGE04R |
| MODIfinder quantified GMO reference DNA - Marker p35S CaMV e tNOS | PGE05R |
| MODIfinder quantified GMO reference DNA - Marker nptII | PGE07R |
| MODIfinder quantified GMO reference DNA - Marker pat | PGE14R |
| MODIfinder quantified GMO reference DNA - Marker bar | PGE15R |
| MODIfinder quantified GMO reference DNA - Marker cp4-epsps | PGE16R |
| MODIfinder quantified GMO reference DNA - Marker p34S FMV | PGE17R |
| MODIfinder quantified GMO reference DNA - Marker cry1Ab/Ac | PGE25R |
| MODIfinder quantified GMO reference DNA - Marker pNOS | PGE27R |
| MODIfinder GM Soybean A2704-12 (UID ACS-GM005-3) quantified reference DNA | PGS01R |
| MODIfinder GM Soybean GTS 40-3-2 (RuR) (UID MON-04032-6) quantified reference DNA | PGS02R |
| MODIfinder GM Soybean A5547-127 (UID ACS-GM006-4) quantified reference DNA | PGS03R |
| MODIfinder GM Soybean MON89788 (UID MON-89788-1) quantified reference DNA | PGS04R |
| MODIfinder GM Soybean DP305423 (UID DP-305423-1) quantified reference DNA | PGS05R |
| MODIfinder GM Soybean DP356043 (UID DP-356043-5) quantified reference DNA | PGS06R |
| MODIfinder GM Soybean MON87701 (UID MON-87701-2) quantified reference DNA | PGS07R |
| MODIfinder GM Soybean CV127 (UID BPS-CV127-9) quantified reference DNA | PGS08R |
| MODIfinder GM Soybean MON87705 (UID MON-87705-6) quantified reference DNA | PGS09R |
| MODIfinder GM Soybean MON87769 (UID MON-87769-7) quantified reference DNA | PGS10R |
| MODIfinder GM Soybean FG72 (UID MST-FG072-2) quantified reference DNA | PGS11R |
| MODIfinder GM Soybean DAS44406 (UID DAS-44406-6) quantified reference DNA | PGS12R |
| MODIfinder GM Soybean DAS68416 (UID DAS-68416-4) quantified reference DNA | PGS13R |
| MODIfinder GM Soybean MON87708 (UID MON-87708-9) quantified reference DNA | PGS15R |
| MODIfinder GM Soybean MON87751 (UID MON-87751-7) quantified reference DNA | PGS19R |
| MODIfinder GM Cotton MON531 (UID MON-00531-6) quantified reference DNA | PGT01R |
| MODIfinder GM Cotton MON1445 (UID MON-01445-2) quantified reference DNA | PGT02R |



| Product List | 120 µl 0,2% 3 ng/µl |
|---|---------------------|
| MODIfinder GM Cotton 281-24-236 (UID DAS-24236-5) quantified reference DNA | PGT03R |
| MODIfinder GM Cotton 3006-210-23 (UID DAS-21023-5) quantified reference DNA | PGT04R |
| MODIfinder GM Cotton LL25 (UID ACS-GH001-3) quantified reference DNA | PGT05R |
| MODIfinder GM Cotton MON15985 (UID MON-15985-7) quantified reference DNA | PGT06R |
| MODIfinder GM Cotton GHB614 (UID BCS-GH002-5) quantified reference DNA | PGT07R |
| MODIfinder GM Cotton MON88913 (UID MON-88913-8) quantified reference DNA | PGT08R |
| MODIfinder GM Cotton GHB119 (UID BCS-GH005-8) quantified reference DNA | PGT09R |
| MODIfinder GM Cotton T304-40 (UID BCS-GH004-7) quantified reference DNA | PGT10R |
| MODIfinder GM Canola MS8 (UID ACS-BN005-8) quantified reference DNA | PGZ01R |
| MODIfinder GM Canola RF3 (UID ACS-BN003-6) quantified reference DNA | PGZ02R |
| MODIfinder GM Canola RT73 (UID MON-00073-7) quantified reference DNA | PGZ03R |
| MODIfinder GM Canola T45 (UID ACS-BN008-2) quantified reference DNA | PGZ04R |
| MODIfinder GM Canola TOPAS 19 2 (UID ACS-BN007-1) quantified reference DNA | PGZ05R |
| MODIfinder GM Canola RF1 (UID ACS-BN001-4) quantified reference DNA | PGZ06R |
| MODIfinder GM Canola RF2 (UID ACS-BN002-5) quantified reference DNA | PGZ07R |
| MODIfinder GM Canola MS1 (UID ACS-BN004-7) quantified reference DNA | PGZ09R |
| MODIfinder GM Canola MON88302 (UID MON-88302-9) quantified reference DNA | PGZ11R |



SPECIALfinder Allergen Kits

DNA is a very stable molecule being almost unaffected by food processing whereas proteins are easily denatured hampering the detection through antibody based techniques.

SPECIALfinder Real-Time PCR Assays detect DNA sequences indicative of the presence of allergenic species. Each assay box contains target specific reagents (primers and probes), Mastermix, negative control and positive control. DNA extraction and purification are critical steps in a PCR experiment as the efficiency and sensitivity of a PCR depend on the purity and yield of the extracted DNA. These parameters are deeply impacted by the matrix.

Tests developed and validated according to UNI-EN 15634-1: 2009 guidelines to detect the target allergen DNA with high specificity and sensitivity.

Absence of cross-reactivity was tested towards a large number of food ingredients to avoid false positives. All the tests are made using prime-quality molecular biology grade reagents.

SPECIALfinder DigiCount

Total DNA extracted from allergens using Generon ION Force Fast DNA Extractor with SPECIALfinder Assays target sequences content quantified using Droplet Digital PCR technology.

| Product List | >120 000 GUs in 120 µl |
|---|------------------------|
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Soy | PAV01R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Peanut | PAV02R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Hazelnut | PAV03R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Walnut | PAV06R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Pistachio | PAV07R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Cashew | PAV08R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Rye | PAV10R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Sesame | PAV13R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Celery | PAV15R |
| SPECIALfinder DigiCount ddPCR quantified standard DNA - Brasilian nut | PAV16R |



SPECIALfinder MC assays «NEW»

SPECIALfinder MC is the new product line developed by Generon. This real-time PCR assay was developed at Generon to maximize the sensitivity of allergen detection by taking advantage of higher DNA copies allergen-specific available into each cell of the allergen.

The result of this improvement is on augmented chance of rapid detection and identification of allergens in environmental swabs and in various complex food/feed matrices (after on appropriate DNA extraction).

| Product List | 50 Tests |
|---|-------------|
| SPECIALfinder Barley food allergen detection kit | PAV25A-50 |
| SPECIALfinder Buckwheat food allergen detection kit | PAV24A-50 |
| SPECIALfinder Celery food allergen detection kit (acc. to DIN CEN/TS 15634-2) | PAV15A-50 |
| SPECIALfinder Gluten food allergen detection kit | PAV17A-50 |
| SPECIALfinder Hazelnut food allergen detection kit (acc. to DIN CEN/TS 15634-3) | PAV03CEN-50 |
| SPECIALfinder MC Almond food allergen detection kit | PAV09M-50 |
| SPECIALfinder MC Brazil nut food allergen detection kit | PAV16M-50 |
| SPECIALfinder MC Cashew food allergen detection kit | PAV08M-50 |
| SPECIALfinder MC Celery food allergen detection kit | PAV15M-50 |
| SPECIALfinder MC Crustaceans food allergen detection kit | PAV19A-50 |
| SPECIALfinder MC Fish food allergen detection kit | PAV20A-50 |
| SPECIALfinder MC Hazelnut food allergen detection kit | PAV03M-50 |
| SPECIALfinder MC Lupin food allergen detection kit | PAV18M-50 |
| SPECIALfinder MC Macadamia Nut food allergen detection kit | PAV21M-50 |
| SPECIALfinder MC Mollusks food allergen detection kit | PAV22M-50 |
| SPECIALfinder MC Mustard food allergen detection kit | PAV14M-50 |
| SPECIALfinder MC Peanut food allergen detection kit | PAV02M-50 |
| SPECIALfinder MC Pecan Nut food allergen detection kit | PAV05M-50 |
| SPECIALfinder MC Pine Nut food allergen detection kit | PAV23M-50 |
| SPECIALfinder MC Pistachio food allergen detection kit | PAV07M-50 |
| SPECIALfinder MC Sesame food allergen detection kit | PAV13M-50 |
| SPECIALfinder MC Soy food allergen detection kit | PAV01M-50 |
| SPECIALfinder MC Tree Nuts and Peanut food allergen detection kit | PAV26M-50 |
| SPECIALfinder Peanut food allergen detection kit (acc. to DIN CEN/TS 15634-4) | PAV02CEN-50 |
| SPECIALfinder Rye food allergen detection kit | PAV10A-50 |
| SPECIALfinder MC Walnut food allergen detection kit | PAV06M-50 |
| SPECIALfinder Oats food allergen detection kit | PAV11A-50 |



SPECIALfinder Allergen Kits

SPECIALfinder SpyX

Powdered allergens dispersed in corn flour at 1000 ppm that can be used as analytical process and extraction controls with both molecular and immunochemical methods.

| Product List | 1000 ppm |
|--|----------|
| SPECIALfinder SpyX matrix reference material - Negative matrix | PAV00X |
| SPECIALfinder SpyX matrix reference material - Soya | PAV01X |
| SPECIALfinder SpyX matrix reference material - Peanut | PAV02X |
| SPECIALfinder SpyX matrix reference material - Hazelnut | PAV03X |
| SPECIALfinder SpyX matrix reference material - Wheat | PAV04X |
| SPECIALfinder SpyX matrix reference material - Pecan nut | PAV05X |
| SPECIALfinder SpyX matrix reference material - Walnut | PAV06X |
| SPECIALfinder SpyX matrix reference material - Pistachio | PAV07X |
| SPECIALfinder SpyX matrix reference material - Cashew | PAV08X |
| SPECIALfinder SpyX matrix reference material - Almond | PAV09X |
| SPECIALfinder SpyX matrix reference material - Rye | PAV10X |
| SPECIALfinder SpyX matrix reference material - Oats | PAV11X |
| SPECIALfinder SpyX matrix reference material - Barley | PAV12X |
| SPECIALfinder SpyX matrix reference material - Sesame | PAV13X |
| SPECIALfinder SpyX matrix reference material - Mustard | PAV14X |
| SPECIALfinder SpyX matrix reference material - Celery | PAV15X |
| SPECIALfinder SpyX matrix reference material - Brazil nut | PAV16X |
| SPECIALfinder SpyX matrix reference material - Lupine | PAV18X |
| SPECIALfinder SpyX matrix reference material - Crustaceans | PAV19X |
| SPECIALfinder SpyX matrix reference material - Fish | PAV20X |
| SPECIALfinder SpyX matrix reference material - Macadamia | PAV21X |
| SPECIALfinder SpyX matrix reference material - Mollusks | PAV22X |
| SPECIALfinder SpyX matrix reference material - Pine nuts | PAV23X |
| SPECIALfinder SpyX matrix reference material - Buckwheat | PAV24X |



VERYfinder

Ingredient Authenticity Kits

Real-time PCR is widely accepted as a robust assay for the species identification and quantification of nucleic acid molecules due to its higher sensitivity and specificity, allowing for a precise determination of undeclared meat fractions in processed and mixed meat products.

VERYfinder is the product line developed by Generon with premium quality molecular biology reagents to provide the customer a turn-key solution for the detection and quantification of a wide selection of animal and plant nucleic acids.

Each Assay box contains target specific reagents (primers and probes), Mastermix, negative control, 2 vials of positive control (120 µl Target DNA at a concentration 8 ng/µl) extracted from raw material and heat treated material respectively.

Heat treatment performed in autoclave at 121°C for 20'.

| Product List | 50 Tests |
|--|-----------|
| VERYfinder food fraud prevention - PORK traces quantification | PMA01S-50 |
| VERYfinder food fraud prevention - BOVINE traces quantification | PMA02S-50 |
| VERYfinder food fraud prevention - TURKEY traces quantification | PMA03S-50 |
| VERYfinder food fraud prevention - POULTRY traces quantification | PMA04S-50 |
| VERYfinder food fraud prevention - SHEEP traces quantification | PMA05S-50 |
| VERYfinder food fraud prevention - GOAT traces quantification | PMA06S-50 |
| VERYfinder food fraud prevention - BUFFALO traces quantification | PMA07S-50 |
| VERYfinder food fraud prevention - EQUINE traces quantification | PMA08S-50 |
| VERYfinder food fraud prevention - EQUINE (acc. to EURL) traces quantification | PMA11S-50 |
| VERYfinder food fraud prevention - RABBIT traces quantification | PMA12S-50 |
| VERYfinder food fraud prevention - DUCK traces quantification | PMA13S-50 |
| VERYfinder food fraud prevention - GOOSE traces quantification | PMA14S-50 |
| VERYfinder food fraud prevention - CAT traces quantification | PMA96S-50 |
| VERYfinder food fraud prevention - DOG traces quantification | PMA97S-50 |
| VERYfinder food fraud prevention - MEAT fraction quantification | PMA99A-50 |
| VERYfinder food fraud prevention - VEGETARIAN verification | PMA99S-50 |



VERYfinder Ingredient Authenticity Kits

VERYfinder Quantiscale

Each box includes 4 vials containing 120 µl of standard of target DNA (extracted from raw material) at scalar concentration (8 ng/µl; 800 pg/µl; 80 pg/µl; 8 pg/µl) dispersed in water. PMA99W can be customized but normally contains 50% each of the following DNA: Swine, Bovine DNA from each kind of meat and bovine DNA to bring total DNA amount to 1200 ng.

| Product List | 1 set |
|--|--------|
| VERYfinder Quantiscale - DNA calibrants for PORK meat quantification via PCR | PMA01W |
| VERYfinder Quantiscale - DNA calibrants for BOVINE meat quantification via PCR | PMA02W |
| VERYfinder Quantiscale - DNA calibrants for TURKEY meat quantification via PCR | PMA03W |
| VERYfinder Quantiscale - DNA calibrants for POULTRY meat quantification via PCR | PMA04W |
| VERYfinder Quantiscale - DNA calibrants for SHEEP meat quantification via PCR | PMA05W |
| VERYfinder Quantiscale - DNA calibrants for GOAT meat quantification via PCR | PMA06W |
| VERYfinder Quantiscale - DNA calibrants for BUFFALO meat quantification via PCR | PMA07W |
| VERYfinder Quantiscale - DNA calibrants for EQUINE meat quantification via PCR | PMA08W |
| VERYfinder Quantiscale - DNA calibrants for RABBIT meat quantification via PCR | PMA12W |
| VERYfinder Quantiscale - DNA calibrants for DUCK meat quantification via PCR | PMA13W |
| VERYfinder Quantiscale - DNA calibrants for GOOSE meat quantification via PCR | PMA14W |
| VERYfinder Quantiscale - DNA calibrants for meat fraction quantification in food via PCR | PMA99W |

VERYfinder Quanticust

Each box includes 1 set of customized DNA:

- Or 5 vials containing 120 µl of standard target DNA dispersed at various customizable concentration (e.g. 100%; 50%; 10%; 1%; 0,1%) in a background DNA extracted from on-demand matrices (e.g. swine/bovine DNA) at a total concentration of 8 ng/µl.
- Or 1 vials containing 300 µl of standard target DNA dispersed at customizable concentration (e.g. 1% equine in 99% bovine) at a total concentration of 8 ng/µl. DNA can be extracted from raw material or heat treated material respectively (Heat treatment performed in autoclave at 121°C for 20') upon customer request.

| Product List | 1 set |
|--|--------|
| VERYfinder QuantiCust - Reference material DNA extract PORK meat quantification | PMA01X |
| VERYfinder QuantiCust - Reference material DNA extract BOVINE meat quantification | PMA02X |
| VERYfinder QuantiCust - Reference material DNA extract TURKEY meat quantification | PMA03X |
| VERYfinder QuantiCust - Reference material DNA extract POULTRY meat quantification | PMA04X |
| VERYfinder QuantiCust - Reference material DNA extract SHEEP meat quantification | PMA05X |
| VERYfinder QuantiCust - Reference material DNA extract GOAT meat quantification | PMA06X |



VERYfinder Ingredient Authenticity Kits

| Product List | 1 set |
|--|--------|
| VERYfinder QuantiCust - Reference material DNA extract BUFFALO meat quantification | PMA07X |
| VERYfinder QuantiCust - Reference material DNA extract EQUINE meat quantification | PMA08X |
| VERYfinder QuantiCust - Reference material DNA extract RABBIT meat quantification | PMA12X |
| VERYfinder QuantiCust - Reference material DNA extract DUCK meat quantification | PMA13X |
| VERYfinder QuantiCust - Reference material DNA extract GOOSE meat quantification | PMA14X |
| VERYfinder QuantiCust - Reference material DNA extract GOAT meat quantification | PMA06X |

VERYfinder Pure DNA Extract

Each box includes a vial containing 1200 ng of ION Force purified target DNA at a concentration 8 ng/ μ l extracted from raw material or heat treated material respectively (Heat treatment performed in autoclave at 121 °C for 20') upon customer request. PMA99R contains 60 ng of DNA from each kind of meat and bovine DNA to bring total DNA amount to 1200 ng.

| Product List | 1200 ng in 150 μ l Vial |
|---|-----------------------------|
| VERYfinder - PORK reference DNA for meat traces PCR detection kits | PMA01R |
| VERYfinder - BOVINE reference DNA for meat traces PCR detection kits | PMA02R |
| VERYfinder - TURKEY reference DNA for meat traces PCR detection kits | PMA03R |
| VERYfinder - CHICKEN reference DNA for meat traces PCR detection kits | PMA04R |
| VERYfinder - SHEEP reference DNA for meat traces PCR detection kits | PMA05R |
| VERYfinder - GOAT reference DNA for meat traces PCR detection kits | PMA06R |
| VERYfinder - BUFFALO reference DNA for meat traces PCR detection kits | PMA07R |
| VERYfinder - HORSE reference DNA for meat traces PCR detection kits | PMA08R |
| VERYfinder - DONKEY reference DNA for meat traces PCR detection kits | PMA11R |
| VERYfinder - RABBIT reference DNA for meat traces PCR detection kits | PMA12R |
| VERYfinder - DUCK reference DNA for meat traces PCR detection kits | PMA13R |
| VERYfinder - GOOSE reference DNA for meat traces PCR detection kits | PMA14R |
| VERYfinder - CAT reference DNA for meat traces PCR detection kits | PMA96R |
| VERYfinder - DOG reference DNA for meat traces PCR detection kits | PMA97R |



VERYfinder Ingredient Authenticity Kits

VERYfinder Dairies Assays

| Product List | 50 Tests |
|---|-----------|
| VERYfinder food fraud prevention - Detection of COW milk in BUFFALO | PMA31S-50 |

VERYfinder Fish Assays

| Product List | 50 Tests |
|---|-----------|
| VERYfinder food fraud prevention - Authenticity testing of ATLANTIC COD | PFA01A-50 |

VERYfinder Wheat Assays

| Product List | 100 Tests |
|---|-----------|
| VERYfinder food fraud prevention - SOFT WHEAT traces quantification | PSV02Q |



WHATfinder

Virus Detection Kits

Hepatitis A virus (HAV) and Norovirus (NoV) are important agents of food-borne human viral illness. They are transmitted by the faecal-oral route, hence infecting their host after ingestion, followed by invasion of cells in the epithelial lining of the gut, and subsequent shedding into sewage.

HAV and NoV detection and quantification is difficult as they are non-culturable and biologically heterogeneous. However, in recent years real-time PCR has enabled confirmation and quantification of HAV and NoV.

Generon developed a portfolio of kits to provide the customers with a turn-key solution to test the presence of these pathogens according to ISO/CEN indications. The portfolio includes all the reagents to execute the ISO protocol from start to finish.

Each assay box contains target specific reagents (primers and probes), negative control and positive control. Mastermix should be order apart.

| Product List | 50 Tests |
|---|-----------|
| WHATfinder RTqPCR [Hepatitis A + Norovirus I + Norovirus II] detection (ISO15216) | PVW02A-50 |
| WHATfinder RTqPCR [Hepatitis A]/[Norovirus I + Norovirus II] detection (ISO15216) | PVW03A-50 |
| WHATfinder RTqPCR [Hepatitis A]/[Norovirus I]/[Norovirus II] detection (ISO15216) | PVW04A-50 |
| WHATfinder RTqPCR [Norovirus I]/[Norovirus II] detection (ISO15216) | PVW07A-50 |
| WHATfinder HAV ID - (ISO15216) compliant Hepatitis A virus detection RTqPCR kit | PVW08A-50 |
| WHATfinder Norovirus Type II ID detection - (ISO15216) | PVW09A-50 |
| WHATfinder Norovirus Type II ID detection - (ISO15216) | PVW10A-50 |



WHATfinder Virus Detection Kits

Due to matrix interferences losses of target virus can occur at several stages during sample virus extraction and RNA extraction. To control for these losses, the norm includes a thorough process control to monitor the efficacy of virions recovery. Samples are spiked prior to processing with a defined amount of a process control virus similar but genetically distinct from HAV and NoV. Generon selected as a process control a virus belonging to caliciviridae family considered a model for simulating NoV and HAV infections.

Each assay box contains target specific reagents (primers and probes), Mastermix, negative control, positive control and process control virus.

| Product List | 50 Tests |
|---|-----------|
| WHATfinder Recovery Efficiency - experimental process control RTqPCR kit (ISO15216) | PVW05A-50 |
| WHATfinder RTqPCR [Norovirus I]/[Norovirus II]/[Proc.Ctrl] detection (ISO15216)* | PVW07P-50 |
| WHATfinder RTqPCR [Hepatitis A]/[Proc.Ctrl.] detection (ISO15216)* | PVW08P-50 |
| WHATfinder multiSCREEN 2-Plex RTqPCR foodborne virus [Hepatitis E]/[Proc.Ctrl.] * | PVW13P-50 |
| WHATfinder 4-plex Rotavirus A + Norovirus I and II Triplex ID with process control* | PVW12P-50 |
| WHATfinder Hepatitis E with process control - Duplex assay* | PVW13P-50 |

* Mastermix should be order apart.

| Product List | 50 Tests |
|--|-----------|
| ReGENERase One-step Mastermix | ENG003-50 |
| ReGENERase PLUS One-step Mastermix with Internal Amplification Control | ENG016-50 |

| Product List | >120 000 GUs in 120 µl |
|--|------------------------|
| WHATfinder DigiCount - RTqPCR Std. for Hepatitis A quantification (ISO15216) | PVW08R |
| WHATfinder DigiCount - RTqPCR Std. for Norovirus I quantification (ISO15216) | PVW09R |
| WHATfinder DigiCount - IRTqPCR Std. for Norovirus II quantification (ISO15216) | PVW10R |



GENERON is an organization with Quality System certified in compliance with UNI EN ISO 9001:2015.

«When I started GENERON, after two decades of work in the most important Italian contract food testing laboratory, my goal was to create a modern approach in response to a complex struggling industry. In the up to date and competitive global market purchasing and providing quality is a challenge. In direct contact with the customers I realized that little food safety issues in raw and finished materials turn into dramatic economical losses

and deterioration of brand image. At Generon we mostly aim to select and offer best-in-range and easy to use assays along with an effective, specific and just-in-time technical support. Today I can say that the company I lead is the company I wished. A customer-oriented company that provides chemical and biological QC tools analysis promptly, quickly, reliably and efficiently, using the most recent technologies and optimizing consolidated

methods. Thanks to our organizational capabilities and speed of response we have been able to achieve exceptional results placing us amongst the top players in the market. Even though ever more challenging, future offers exciting prospects and we remain high-reaching, willing to get further and to become the leading benchmark in the food & feed safety field.»



INGREDIENTS AUTHENTICITY | CHEMICAL RESIDUES | GMO
MICROBIOLOGY | MYCOTOXINS | ALLERGENS
ANTIBIOTICS | ANIMAL HEALTH



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